

A new *Proutia* species from China (Lepidoptera, Psychidae)

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Summary

Proutia chinensis sp. n. is described from specimens taken in the Zhejiang and Jiangxi provinces of the Peoples Republic of China. It is compared with the three other known species of the genus.

Zusammenfassung

Eine neue Art, *Proutia chinensis* sp. n., aus den Provinzen Zhejiang und Jiangxi in der V.R. China wird beschrieben und mit den drei schon bekannten Arten der Gattung verglichen.

摘要：本文记述娇蓑蛾属 (*Proutia* Tutt, 1899)

一新种，采自中国浙江省和江西省。

本新种是与娇蓑蛾属 (*Proutia* Tutt) 三个已知

种作了比较。

The collections of the Academia Sinica in Beijing include a series of 11 males of a small brown Psychid which cannot be identified as one of the known species. Careful study has shown that the species belongs to the tribe Psychini and indicates the genus *Proutia*. This genus has an intercalated-cell, but it remains unknown whether the new species has this character or not, because the venation at the outer end of the discoidal-cell was almost invisible in all of the forewings studied. Nevertheless, we place the new species in the genus *Proutia* as all other characteristics match well with this genus and the difference in venation is not considered very important.

P. nigripunctata DIERL, 1966 from Nepal also differs from the typical venation of the genus by having an additional accessory-cell. The new species described below has so far only been found in the two provinces Zhejiang and Jiangxi in the south-eastern part of China, south of the Yangtse river.

Proutia chinensis sp. n.

HOLOTYPE : Male "Yuhang, Zhejiang prov. 20.4.1983". In the collections of the Academia Sinica, Beijing, China.

ALLOTYPE : Female, same data as the holotype.

PARATYPES : 8 males, same data as holotype ; 1 male "Xingchi county, Jiangxi prov. 14.4.1988" ; 1 male and 1 female "Fuyang county, Zhejiang prov. 20.4.1982". Two males and one female are in coll. HÄTTENSCHWILER and the remainder in the Academia Sinica.

MALE : Wingspan 10-12.5 mm, average 10.8 mm (n = 11). Forewing with pointed apex, 9 veins, hindwing with 5 veins emanating from the discoidal-cell (Fig. 1). At the outer end of the discoidal-cell of the forewing the venation is invisible (3 wing-preparations), therefore it remains unknown whether there is an intercalated cell or not. Forewing with broad scales (class 5-6 sensu SAUTER, 1956), hindwing scales narrower, (class 2-3), all wings brown, hindwings a little lighter. Palpi reduced to a miniature stump, ocelli

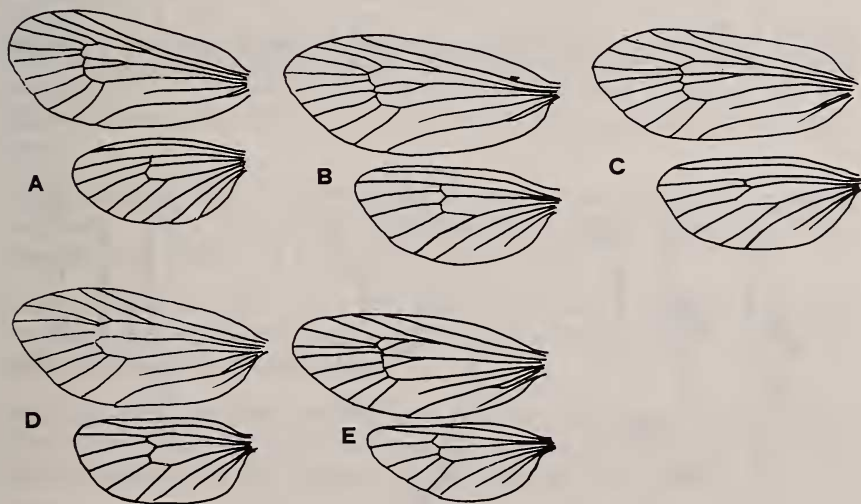


Fig. 1. Wing venation. A = *P. breviserrata*, B = *P. betulina* (Ronco, Switzerland), C = *P. betulina* (Uster, Switz.), D = *P. chinensis* sp. n., E = *P. nigripunctata*.

missing, thorax and abdomen covered with dark brown, almost black hairs, in addition head and thorax with some short but broad scales. Antennae bipectinate, 19-21 segments, pectination unscaled (Fig. 2). Fore tibia with a long epiphysis, index 0.62 (sensu DIERL, 1964), middle with one, hind legs with two pairs of tibial spurs, all legs with 5 segmented tarsi (Fig. 3). The genitalia of the Psychini type, valvae wide, sacculus long, aedeagus curved (Fig. 4).

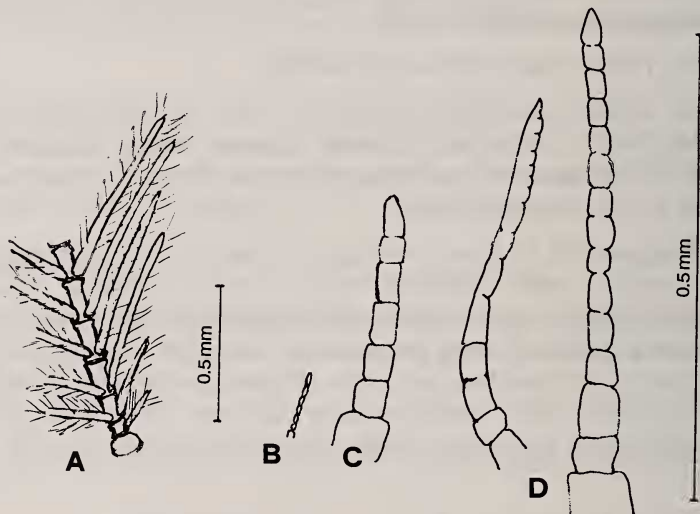


Fig. 2. A-C Antennae of *P. chinensis* sp. n., A = male, B = female, same scale, C = female, enlarged, D = female antenna of *P. betulina*, left Herringen/Germany, right Uster.

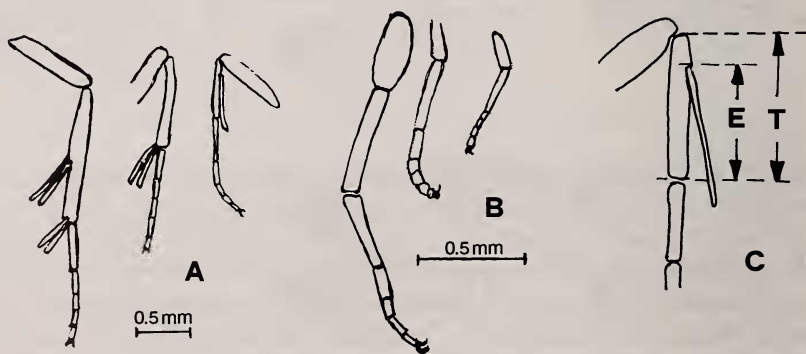


Fig. 3. Legs of *P. chinensis* sp. n., A = male, B = female, forelegs at the right, C = explanation of the Epiphysis index, E/T.

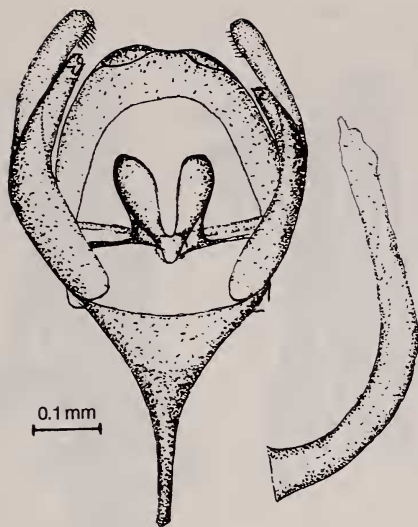


Fig. 4. Male genital armature of *P. chinensis* sp. n.

FEMALE : small, curved, reddish in colour (Fig. 5), apterous, legs glassy, forelegs very thin and short, middlelegs a little longer and hind legs very long, approx. 2.5-3 times the length of the forelegs, 3-5 tarsal segments (Figs. 3 + 5). Head without mouth appendixes, eyes small, black, distance between eyes 1.3-1.6 times their diameter, ocelli missing. Antennae with 6-7 segments, glassy (Fig. 2B, C). Abdomen with a full ring of light brown caudal hairs.

PUPA : Exuviae with 5 rows of dorsal thorns, one sturdy row pointing backwards and a row of fine, smaller thorns pointing forwards on each segment, head plate with 4 pairs of bristles (Fig. 6).

LARVA : Unknown, case 12-13 mm long, 2.5-3 mm in diameter with grass stems or pine-needles attached lengthwise to the silken interior (Fig. 7), no difference observed between sexes.

BIOLOGY : Foodplant and development unknown, emergence second half of April. Due to the relatively small eyes and the large distance between them one can assume that the adults fly in the daytime (DIERL, 1970).

DISTRIBUTION : So far, only known from the Yuhang region, the Fujang county (both Zhejiang province) and Xinxhi county (Jiangxi province), but it is probable that it has a wider distribution.

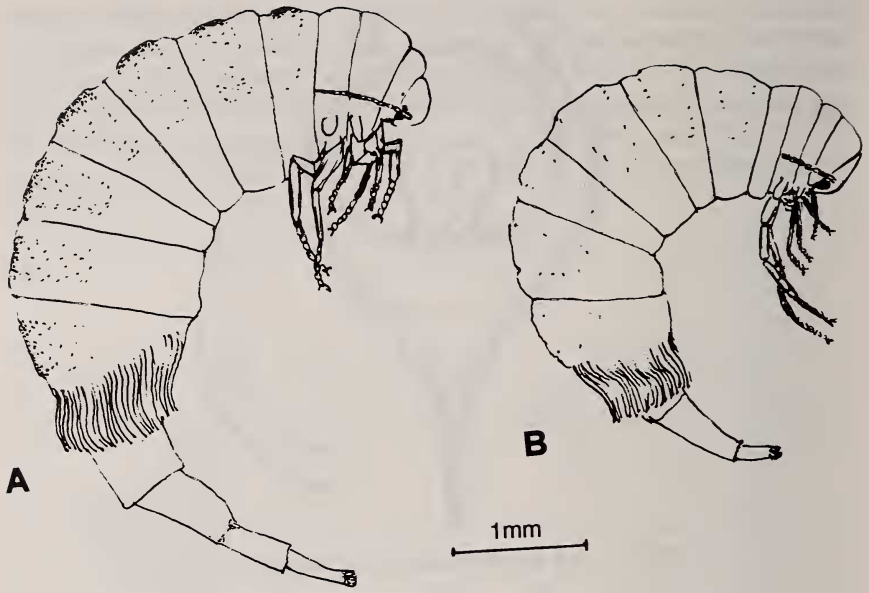


Fig. 5. Adult females, A = *P. betulina*, Uster, B = *P. chinensis* sp. n.



Fig. 6. Pupal exuviae of *P. chinensis* sp. n.

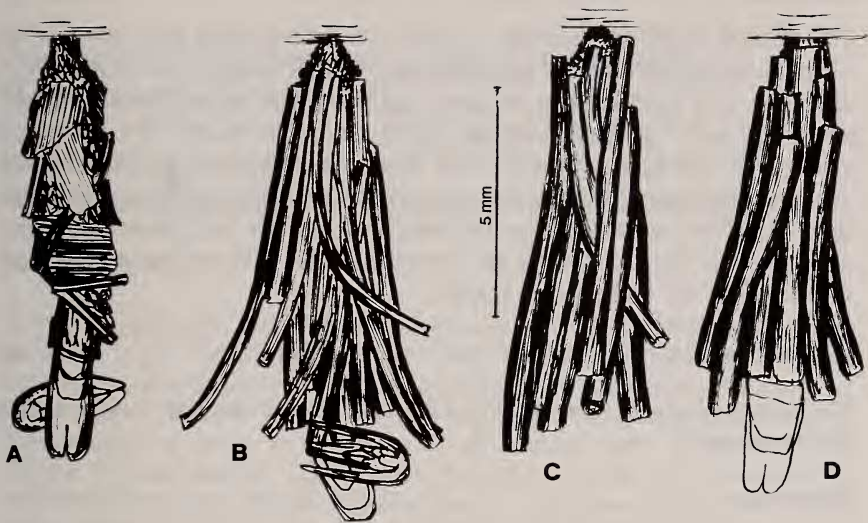


Fig. 7. Cases of adult larvae, A = *P. betulina*, B = *P. breviserrata*, C = female and D = male of *P. chinensis* sp. n.

Table 1
Comparison table for the four species of the genus *Proutia*

	<i>P. chinensis</i>	<i>P. betulina</i>	<i>P. breviserrata</i>	<i>P. nigripunctata</i>
♂ Antenna segments	19 - 21	19 - 26	20 - 24	24
Antenna pectination				
length : scape	8 - 12 x ϕ	6 - 8 x ϕ	10 - 12 x ϕ	4 x ϕ
Intercalated cell	invisible	present	present	pres. + access. cell
Wingspan mean mm	10.8	12.5	15	10.3
range mm	10 - 12.5	11 - 14	13.5 - 15.5	only one specim.
Wingcolour forewing	brown	brown	sooty - black	dark brown with scattered dark dots
hindwing	lighter brown	lighter brown	scarsely lighter	unicolorous, no dots
Scales forewing, class	5 - 6	5 - 6	4 - 5	?
hindwing, class	2 - 3	3 - 4	3 - 4	?
Eye - distance	1.3 - 1.6 x ϕ	1.4 - 1.8 x ϕ	1.1 - 1.4 x ϕ	1 x ϕ
Epiphysis index foreleg	0.62	0.70	0.87	0.69
♀ Antenna segments	6 - 7	10 - 16	14 - 16	?
Leg length ratio third : first	2.9 : 1	1.4 : 1	1.3 : 1	?
Caudal hair tuft	light - brown	silver - white	creamy - yellow	?
Distribution	China	Europe	East - Europe	Nepal
Adult emergence	End of April	May - July	July	April

Discussion

The females of the new species can easily be distinguished from those of all other known species of the tribe Psychini by their reddish colour and short antennae, and from females of other species of the genus *Proutia* by their small size and high fore-/hind leg length ratio. The males offer no clearly visible distinguishing characters, but there are differences in the size, the venation, the epiphysis index and to a certain extent also the colour, although here only fresh specimens can be compared because the colours fade and after a certain time all species are brownish. Table 1 shows some important characters of the four species known.

Acknowledgement

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